

Remarks

Favorable reconsideration of this application, in view of the above amendments and in light of the following remarks and discussion, is respectfully requested.

Claims 1-3, 7-25, and 42-50 are currently pending in the application; Claim 50 having been amended by way of the present response.

In the outstanding Office Action Claim 50 was rejected under 35 U.S.C. § 112, second paragraph, and Claims 1-3, 7-11, 13, 42, 43, 45, and 50 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,943,669 to Numata.

Initially, Applicants express thanks for the Examiner's indication that Claims 12, 14-25, 44, and 46-49 are allowed.

As stated above Claim 50 was rejected under 35 U.S.C. § 112, second paragraph. In response, Applicants have amended the claim to recite, in relevant part, "which contents contains a plurality of items extracted from the contents of the document irrespective of chapters, clauses, sentences and paragraphs of the document." Thus, Applicants respectfully request that the rejection of Claim 50 under 35 U.S.C. § 112 be withdrawn.

As stated above Claims 1-3, 7-11, 13, 42, 43, 45, and 50 were rejected under 35 U.S.C. § 102(b) as being anticipated by Numata. Applicants respectfully request that the rejection of the claims be withdrawn for the following reasons.

The present invention is directed to document classification systems and processor readable medium storing program codes. Independent Claim 1 recites displaying means for displaying items of document data input by inputting means. Designating means are used for designating at least one of the items displayed in the displaying means. Converting means are used for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by the designating means.

Independent Claim 7 recites second program code means for displaying items of document

data input by first program code means. Third program code means are used for designating at least one of the items displayed by the second program code means. Fourth program code means are used for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by the third program code means. Independent Claim 10 recites vector producing means for producing a document feature vector with respect to document data based on analysis information. Transforming function calculating means are used for calculating a representation transforming function used for projecting the document feature vector onto a space in which similarity between the document feature vectors is reflected with a dimensional number different from a dimensional number of the document feature vector. Independent Claim 42 recites third program code means for producing a document feature vector with respect to document data based on analysis information. Fourth program code means are used for calculating a representation transforming function used for projecting the document feature vector onto a space in which similarity between the document feature vectors is reflected with a dimensional number different from a dimensional number of the document feature vector. Independent Claim 50 recites displaying means for displaying items of document data input by inputting means. Designating means are used for designating at least one of the items displayed by the displaying means. Converting means are used for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by the designating means.

Regarding the rejection of independent Claim 1, Numata is directed to a document retrieval device. As shown in Figure 1, for example, of Numata, a document storing section 1 stores documents which are to be retrieved. In the document storing section 1, documents which have logical tree structures, where certain structural elements include other structural elements, are stored. Classification unit designation section 2 performs the designation of the

classification units as “documents,” “chapters,” “sections,” “paragraphs,” and the like.

Logical structure analysis section 3 reads the documents from document storing section 1, and analyzes the logical structure of the read document. A hierarchical relationship is developed of the structural elements of the document by analysis of the logical structure.¹

Applicants respectfully assert that Numata does not teach, however, the claimed features of designating means for designating an item of document data displayed in displaying means, and converting means for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by the designating means, as recited in independent Claim 1. Specifically, Applicants respectfully assert that Numata does not show or state the classification unit designation section 2 (i.e., a designating means) designating an item of document data of the read document, but rather at
✓ most states that the section 2 designates a chapter, or section, for example, of the read document (i.e., the section 2 designates a logical structural element of the read document, rather than an item of document data of the read document). Thus, Applicants further
✓ respectfully assert that Numata does not show or state converting document data of the read document into converted data containing only data corresponding to an item of the document data designated by the section 2. Restated, Applicants respectfully assert that Numata does not show or state converting the read document into data only corresponding to an item of data designated by the section 2 (and discarding data that does not correspond to the item of
✓ data), but instead states that the section 2 performs designation on the entire read document.

Specifically, independent Claim 1 recites “displaying means for displaying the items of the document data input by said inputting means . . . [,] designating means for designating at least one of the items displayed in said displaying means . . . [and] converting means for converting the document data into converted data so that the converted data contains only

¹ Column 5, lines 42-59.

data corresponding to the item designated by said designating means.” Thus, Applicants respectfully request that the rejection of independent Claim 1 under 35 U.S.C. § 102(b) be withdrawn and the independent claim allowed.

Regarding the rejection of independent Claim 7, for reasons similar to those discussed above with respect to independent Claim 1, Applicants respectfully assert that Numata does not teach the claimed features of third program code means for designating at item of document data displayed by second program code means, and fourth program code means for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by the third program code means, as recited in the independent claim. Specifically, independent Claim 7 recites “second program code means for displaying the items of the document data input by said first program code means . . . [,] third program code means for designating at least one of the items displayed by the second program code means . . . [and] fourth program code means for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by the third program code means.” Thus, Applicants respectfully request that the rejection of independent Claim 7 under 35 U.S.C. § 102(b) be withdrawn, and the independent claim allowed.

Regarding the rejection of independent Claim 50, for reasons similar to those discussed above with respect to independents Claims 1 and 7, Applicants respectfully assert that Numata does not teach the claimed features of designating means for designating an item of document data displayed by displaying means, and converting means for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by the designating means, as recited in the independent claim. Specifically, independent Claim 50 recites “displaying means for displaying the items of the document data input by said inputting means . . . [,] designating means for designating

at least one of the items displayed by said displaying means . . . [and] converting means for converting the document data into converted data so that the converted data contains only data corresponding to the item designated by said designating means.” Thus, Applicants respectfully request that the rejection of independent Claim 50 under 35 U.S.C. § 102(b) be withdrawn, and the independent claim allowed.

Regarding the rejection of independent Claim 10, Numata additionally states that a composite vector T relative to a paragraph that is below a certain section that is below a certain chapter in a document is determined by a summation of a fundamental vector, a content vector of the section, and the content vector of the chapter, for example.²

Applicants respectfully assert that Numata does not teach, however, the claimed features of transforming function-calculating means for calculating a representation transforming function used for projecting a document feature vector produced with respect to document data onto a space in which similarity between the document feature vectors is reflected with a dimensional number different from a dimensional number of the document feature vector, as recited in independent Claim 10. Specifically, Applicants respectfully assert that Numata does not show or state calculating a transforming function in which similarity is reflected with a dimensional number (i.e., a number indicating a number of dimensions) different from a dimensional number (i.e., a number indicating a number of dimensions) of a document feature vector produced with respect to document data. Rather, Applicants respectfully assert that Numata does not show or state determination of a dimensional number of a vector produced with respect to document data of the read document, but rather shows the summation of various vectors related to the read document.

Specifically, independent Claim 10 recites “vector producing means for producing a document feature vector with respect to the document data based on the analysis information

² From Column 25, line 58 to Column 26, line 11.

. . . [and] transforming function calculating means for calculating a representation transforming function used for projecting the document feature vector onto a space in which similarity between the document feature vectors is reflected with a dimensional number different from a dimensional number of the document feature vector.” Thus, Applicants respectfully request that the rejection of independent Claim 10 under 35 U.S.C. § 102(b) be withdrawn, and the independent claim allowed.

Regarding the rejection of independent Claim 42, for reasons similar to those discussed above with respect to independents Claim 10, Applicants respectfully assert that Numata does not teach the claimed features of fourth program code means for calculating a representation transforming function used for projecting a document feature vector with respect to document data onto a space in which similarity between the document feature vectors is reflected with a dimensional number different from a dimensional number of the document feature vector, as recited in the independent claim. Specifically, independent Claim 42 recites “third program code means for producing a document feature vector with respect to the document data based on the analysis information . . . [and] fourth program code means for calculating a representation transforming function used for projecting the document feature vector onto a space in which similarity between the document feature vectors is reflected with a dimensional number different from a dimensional number of the document feature vector.” Thus, Applicants respectfully request that the rejection of independent Claim 42 under 35 U.S.C. § 102(b) be withdrawn, and the independent claim allowed.

Applicants respectfully assert that dependent Claims 2, 3, 8, 9, 11, 13, 43, and 45 are allowable for the same reasons as the independent claims from which they depend, as well as for their own features. Thus, Applicants respectfully request that the rejection of dependent

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Claims 2, 3, 8, 9, 11, 13, 43, and 45 under 35 U.S.C. § 102(b) be withdrawn and the dependent claims allowed.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-3, 7-25, and 42-50 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Registration No. 25,599
Attorney of Record

Philip J. Hoffmann
Registration No. 46,340

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